

4C: CHANGING CLIMATE, CHANGING CITIES
THE GREAT URBAN TRANSFORMATION

MEMORANDUM

FROM THE 4TH NOBEL LAUREATES SYMPOSIUM
ON GLOBAL SUSTAINABILITY
HONG KONG: 25 APRIL 2015



THE GREAT URBAN TRANSFORMATION

We are at a watershed moment. Climate change poses an immediate threat to the safety of our home, the Earth. If we act now, we can seize the opportunity to transition to a safe, sustainable future. Cities have been major contributors to human-induced climate change. As hubs of innovation, they can take the lead in its solution.

As 9 of the world's 10 largest urban areas are in Asia, and half of the fastest-growing urban economies are in China, we have chosen to meet in Hong Kong to discuss the challenges and opportunities presented to all cities by climate change.

Economic development has lifted millions of people out of poverty and offered even more prosperity to many. However, explosions in consumption, population and urbanisation are placing enormous pressure on natural resources and social structures alike. **We stress that a sustainable future requires reducing the impact of urbanisation on climate and ecosystems by respecting the limited resource capacity and restorative capability of the Earth.**

In order to safeguard citizens, economic assets and supporting ecosystems, cities need to adapt to the climate change that is already underway. **We urge cities to map the risks to which their citizens are most vulnerable, to reduce those risks where it is possible, and build resilient social and physical structures where it is not.**

As powerhouses of creativity and action, many cities have already become the first responders to climate change, leading the nations of which they are part. We support the urban collectives that have developed to share knowledge and experience, and allowed cities to have even greater impact by catalysing and empowering similar responses elsewhere. **We challenge all city governments, innovators, and the private sector to work together to unlock necessary resources and enable evidence-based local action to limit further man-made climate change.**

Sensible climate mitigation and adaptive measures inevitably have co-benefits: energy efficient buildings reduce costs and provide greater comfort; reducing reliance on fossil fuels can dramatically improve air quality and thus human health and quality of life; successfully addressing climate risks increases business investment and job opportunities. **We encourage weaving sustainable practice into the complete fabric of city life, so that cities will become more efficient, healthier and more prosperous.**

Cities do not and cannot exist in isolation. They are part of global, interdependent networks that connect them to each other, to rural communities, and to the natural world. **We advocate increasing the sustainability of urban interconnectedness by moving towards economies that reuse resources in a continual cycle.** Doing so will increase the value of materials and re-manufacture, stimulate new business models and jobs, and reduce environmental pressures on an already stressed planet.

The cities of tomorrow are forming today. Whether regenerating

from old, historical sites, rising up as planned new cities, or assembling into informal settlements precipitated by economic and political failures, these urban areas will be home to another 1-2 billion people by 2050. Managing this great transformation in a manner that supports sustainable development and is adaptive to change and new learning is a central challenge of the first half of our century. **Whilst it is crucial that all cities employ sustainable and adaptable practices as they continue to grow, we make a special plea for innovative effort, resources, and political leadership focussed on improving the infrastructure that serves the urban poor and most vulnerable.**

Climate change action by urban and regional areas occurs more rapidly and economically when supported by higher jurisdictions that clearly enunciate and act on ambitious, long-term climate policies. This makes national and international action critical. An average global temperature rise of more than 2°C above pre-industrial levels would cause a dangerous increase in climate change impacts, including weather extremes and sea level rise unprecedented in the history of human civilization. **We challenge nations to adopt and meet national targets consistent with the internationally-agreed 2°C guardrail.** This will require reducing the net flow of greenhouse gases from humans into the environment to nearly zero by about mid-century. Cities can be pioneers in this process, and many already are – by enacting plans for local greenhouse gas reductions that are sufficiently ambitious in magnitude and speed.

Without strong action, all the world's citizens will bear the brunt of dangerous climate change. Yet our message to you is not one of despair, but of hope and resolve. Many cities are in the vanguard of a new vision for sustainable, healthy, and responsible living. Working together in growing urban networks, they are exhibiting leadership in swift, effective climate change action.

We challenge national political leaders and policymakers to heed the call – not only from leading scientists and economists – but from their own cities and citizens – to generate a strong, equitable, and science-based agreement at the UN Climate Summit in Paris, in partnership with mayors, business leaders and civil society. This will require turning words and principles into practical policies and actions. It will require cooperation amongst scientists, politicians, civic leaders and citizens. It will require not just setting targets, but meeting those targets in the near-term and throughout this century. It will require assisting, engaging and empowering societies whose economic and social circumstances prevent them from mitigating and adapting to climate change on their own.

For our part, we will use our passion and skills to support efforts to limit and manage climate change. We will work with you to build a legacy that will be felt for centuries: The legacy of instituting healthy relationships with the natural systems that support us all, to create a world that is more sustainable, more prosperous, and more humane. The future of humanity depends on it.

SIGNATURES NOBEL LAUREATES



PETER DOHERTY

1996 Recipient of Nobel Prize
in Physiology or Medicine



SIR JAMES MIRRLEES

1996 Recipient of Nobel Memorial Prize
in Economic Sciences



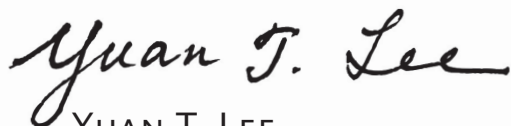
BRIAN SCHMIDT

2011 Recipient of Nobel Prize in Physics



GEORGE F. SMOOT

2006 Recipient of Nobel Prize in Physics



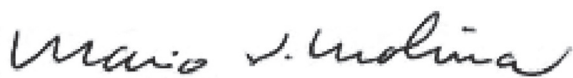
YUAN T. LEE

1986 Recipient of Nobel Prize in Chemistry



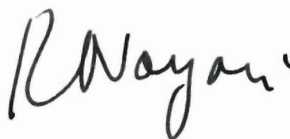
ADA YONATH

2009 Recipient of Nobel Prize in Chemistry



MARIO MOLINA

1995 Recipient of Nobel Prize in Chemistry



RYOJI NOYORI

2001 Recipient of Nobel Prize in Chemistry



WILLIAM ESCO MOERNER

2014 Recipient of Nobel Prize in Chemistry

FURTHER NOBEL LAUREATES WHO SUPPORT THE MEMORANDUM



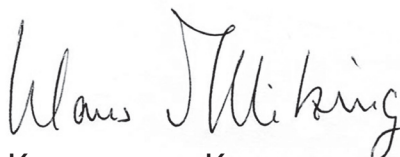
HAROLD W. KROTO

1996 Recipient of Nobel Prize in Chemistry



SIR JOHN B. GURDON

2012 Recipient of Nobel Prize in Medicine



KLAUS VON KLITZING

1985 Recipient of Nobel Prize in Physics



DAVID GROSS

2004 Recipient of Nobel Prize in Physics

This memorandum is an outcome of the Nobel Laureates Symposium on Global Sustainability „4C: Changing Climate, Changing Cities“, co-hosted in Hong Kong by the Potsdam Institute for Climate Impact Research (PIK) and the Asia Society Hong Kong (ASHK) Center in April 2015. After Potsdam, London, Stockholm, the event has been the fourth in

a series initiated by PIK to bring together Nobel Laureates from all disciplines and countries with leading sustainability experts and scientists. This document, challenging cities and nation-states, will go to stakeholders around the world. It is intended to eventually feed into the preparation of the World Climate Summit to be held in Paris at the end of the year.